UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

NewLink Genetics Corporation

(Exact name of registrant as specified in its charter)

Delaware 42-1491350

(State or other jurisdiction of Incorporation or organization)

(I.R.S. Employer Identification No.)

2503 South Loop Drive Ames, IA 50010 (515) 296-5555 (Address of principal executive offices)

2000 Equity Incentive Plan
2009 Equity Incentive Plan, as amended
2010 Non-Employee Directors' Stock Award Plan, as amended
2010 Employee Stock Purchase Plan
(Full title of the plans)

CHARLES J. LINK, JR.
Chief Executive Officer
NewLink Genetics Corporation
2503 South Loop Drive
Ames, IA 50010
(515) 296-5555

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:
James C. T. Linfield, Esq.
Brent D. Fassett, Esq.
Cooley LLP
380 Interlocken Crescent, Suite 900
Broomfield, CO 80021
(720) 566-4000

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer o

Non-accelerated filer \boldsymbol{x} (Do not check if a smaller reporting company)

Accelerated filer o
Smaller reporting company o

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered NewLink Genetics Corporation 2000 Equity	Amount to be Registered (1) Incentive Plan	Proposed Ma Offerin Price per S	g	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, par value					
\$0.01 per share					
(Issuable Upon Exercise of Outstanding					
Options)	503,986 shares (2)	\$	2.02(3) \$	1,018,051.72(3)	\$ 116.6

NewLink Genetics Corporation 2009 Equity Incentive Plan, as amended

Common Stock, par value	3,025,767 shares (4)	\$	3.77(5) \$	11,407,141.59(5) \$	1,307,26
\$0.01 per share	3,023,707 shares (4)	Φ	3.77(3) \$	11,407,141.55(5) \$	1,507.20
(Issuable Upon Exercise of Outstanding					
Options)					
Common Stock, par value					
\$0.01 per share					
(Reserved for Future Grants)	306,262 shares (4)	\$	7.00(6) \$	2,143,834.00(6) \$	245.68
NewLink Genetics Corporation 2010 Non-	-Employee Directors' Stock A	ward Plan, as	amended		
Common Stock, par value					
\$0.01 per share					
(Reserved for Future Grants)	238,095 shares (7)	\$	7.00(6) \$	1,666,665.00(6) \$	191.00
NewLink Genetics Corporation 2010 Emp	loyee Stock Purchase Plan				
Common Stock, par value					
\$0.01 per share					
(Reserved for Future Grants)	214,285 shares (8)	\$	7.00(6) \$	1,499,995.00(6) \$	171.90
TOTALS	4 288 395 shares		N/A \$	17.735.687.31 \$	2.032.51

- Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "*Securities Act*"), this Registration Statement shall also cover any additional shares of Registrant's Common Stock (the "*Common Stock*") that become issuable under the plans by reason of any stock dividend, stock split, recapitalization or other similar transaction.
- (2) Represents shares of Common Stock reserved for issuance upon the exercise of outstanding options granted under the NewLink Genetics Corporation 2000 Equity Incentive Plan (the "2000 EIP"). The 2000 EIP has been terminated and no further option grants will be made under the 2000 EIP. Any shares remaining available for future grant, plus any shares underlying outstanding options that expire or are forfeited, have been allocated to the NewLink Genetics Corporation 2009 Equity Incentive Plan, as amended (the "2009 EIP").
- (3) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(h) and Rule 457(c) of the Securities Act. The proposed maximum aggregate offering price per share and proposed maximum aggregate offering price for the 503,986 shares of Common Stock reserved for future issuance upon the exercise of options outstanding under the 2000 EIP are calculated using a weighted average exercise price for such shares of \$2.02 per share based on exercise prices for such shares ranging from \$0.53 to \$2.10 per share.
- (4) Represents shares of Common Stock reserved for issuance under the 2009 EIP, of which: (a) 3,025,767 shares are reserved for issuance upon the exercise of outstanding options granted under the 2009 EIP; and (b) 306,262 shares are reserved for future grant under the 2009 EIP. The share reserve will be automatically increased pursuant to an "evergreen provision" on January 1 of each year, from 2012 to (and including) 2019, in an amount equal to 4% of the total number of shares of Common Stock outstanding on December 31 of the preceding calendar year. The Registrant's board of directors retains the authority to designate a lesser number of shares by which the share reserve will be increased.
- (5) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(h) and Rule 457(c) of the Securities Act. The proposed maximum aggregate offering price per share and proposed maximum aggregate offering price for the 3,025,767 shares of Common Stock reserved for future issuance upon the exercise of options outstanding under the 2009 EIP are calculated using a weighted average exercise price for such shares of \$3.77 per share based on exercise prices for such shares ranging from \$0.40 to \$10.02 per share.
- (6) This estimate is made pursuant to Rule 457(h) of the Securities Act solely for purposes of calculating the registration fee, and is based on the price per share of the Registrant's Common Stock in the initial public offering of the Registrant's Common Stock as set forth in the Registrant's Prospectus filed with the Securities and Exchange Commission on November 14, 2011 pursuant to Rule 424(b) under the Securities Act.
- (7) Represents 238,095 shares of Common Stock reserved for future grant under the NewLink Genetics Corporation 2010 Non-Employee Directors' Stock Option Plan, as amended.
- (8) Represents 214,285 shares of the Registrant's common stock reserved for future grant under the NewLink Genetics Corporation 2010 Employee Stock Purchase Plan.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

ITEM 1. PLAN INFORMATION.

Not required to be filed with this Registration Statement.

ITEM 2. REGISTRANT INFORMATION AND EMPLOYEE PLAN ANNUAL INFORMATION.

Not required to be filed with this Registration Statement.

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ITEM 3. INCORPORATION OF DOCUMENTS BY REFERENCE.

The Registrant hereby incorporates by reference into this Registration Statement the following documents previously filed by the Registrant with the Securities and Exchange Commission (the "*Commission*"):

- (a) The Registrant's prospectus filed on November 14, 2011 pursuant to Rule 424(b) under the Securities Act, relating to the registration statement on Form S-1 (File No. 333-171300), which contains audited financial statements for the Registrant's latest fiscal year for which such statements have been filed.
- **(b)** The description of the Registrant's Common Stock contained in the Registrant's registration statement on Form 8-A filed on November 8, 2011 (File No. 001-35342) under the Securities Exchange Act of 1934, as amended (the "*Exchange Act*"), including any amendment or report filed for the purpose of updating such description.

All documents, reports and definitive proxy or information statements filed by Registrant pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this Registration Statement and prior to the filing of a post-effective amendment that either indicates all securities offered hereby have been sold or deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference into this Registration Statement and to be a part hereof from the date of filing of such documents. Any statement contained in a document incorporated or deemed to be incorporated herein by reference shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes that statement. Any such statement so modified or superseded shall not constitute a part of this Registration Statement, except as so modified or superseded.

ITEM 4. DESCRIPTION OF SECURITIES.

Not applicable.

ITEM 5. INTERESTS OF NAMED EXPERTS AND COUNSEL.

Not applicable.

ITEM 6. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

The Registrant is incorporated under the laws of the State of Delaware. The Registrant's amended and restated bylaws require the Registrant to indemnify its directors to the fullest extent not prohibited by law and permit the Registrant to indemnify its officers, employees and other agents as set forth under Delaware law. The Registrant will indemnify any such person in connection with a proceeding initiated by such person only if such indemnification is expressly required by law, the proceeding was authorized by the Registrant's board of directors, the indemnification is provided by the Registrant, in its sole discretion, pursuant to the Delaware General Corporation Law or other applicable law or is otherwise expressly required by the Registrant's amended and restated bylaws. Section 145 of the Delaware General Corporation Law permits indemnification of officers, directors and other agents under specified circumstances and subject to specified limitations. Delaware law also permits a corporation to not hold its directors personally liable for monetary damages for breach of their fiduciary duties as directors, except for liability for:

- · breach of their duty of loyalty to the corporation or its stockholders;
- · acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- · unlawful payments of dividends or unlawful stock repurchases or redemptions; and
- · any transaction from which the director derived an improper personal benefit.

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These limitations of liability do not affect the availability of equitable remedies such as injunctive relief or rescission.

The Registrant's amended and restated bylaws permit the Registrant to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in this capacity. The Registrant has obtained directors' and officers' liability insurance to cover certain liabilities.

The Registrant has entered into indemnity agreements with each of its directors that require the Registrant to indemnify such persons against any and all expenses, including attorneys' fees, witness fees, judgments, fines, settlements and other amounts incurred, including expenses of a derivative action, in connection with any action, suit or proceeding or alternative dispute resolution mechanism, inquiry hearing or investigation, whether threatened, pending or completed, to which any such person may be made a party by reason of the fact that such person is or was a director, an officer or an employee of the Registrant, provided that such person's conduct did not constitute a breach of his or her duty of loyalty to the Registrant or the Registrant's stockholders, and was not an act or omission not in good faith or which involved intentional misconduct or a knowing violation of laws. The indemnity agreements also set forth procedures that will apply in the event of a claim for indemnification thereunder. The Registrant believes that these provisions and agreements are necessary to attract and retain qualified persons as directors of the Registrant.

At present, there is no pending litigation or proceeding involving a director or officer of the Registrant for which indemnification is required or permitted, and the Registrant is not aware of any threatened litigation or proceeding that may result in a claim for indemnification.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted by directors, executive officers or persons controlling the Registrant, the Registrant has been informed that in the opinion of the Commission, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

ITEM 7. EXEMPTION FROM REGISTRATION CLAIMED.

Not applicable.

		Incorporated by Reference			
Exhibit No.	Description	Form	Filing Date	Number	Filed Herewith
4.1	Amended and Restated Certificate of Incorporation	S-1/A	11/08/2011	3.2	Herewith
4.2	Amended and Restated Bylaws	S-1/A	11/08/2011	3.4	
4.3	Form of Common Stock Certificate of the Registrant	S-1/A	10/26/2011	4.1	
5.1	Opinion of Cooley LLP				X
23.1	Consent of KPMG LLP, independent registered public accounting firm				X
23.2	Consent of Cooley LLP (included in Exhibit 5.1)				X
24.1	Power of Attorney (see signature page of this registration statement)				X
99.1	2000 Equity Incentive Plan	S-1	12/21/2010	10.2	
99.2	Form of Stock Option Agreement under 2000 Equity Incentive Plan	S-1	12/21/2010	10.3	
99.3	Form of Stock Option Grant Notice under 2000 Equity Incentive Plan	S-1	12/21/2010	10.4	
99.4	Form of Stock Bonus Agreement under 2000 Equity Incentive Plan	S-1	12/21/2010	10.5	
99.5	Amended and Restated 2009 Equity Incentive Plan	S-1	12/21/2010	10.6	
99.6	Form of Stock Option Agreement under 2009 Equity Incentive Plan	S-1	12/21/2010	10.7	
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Exhibit		Inc	orporated by Referen Filing	ce	Filed
No.	Description	Form	Date	Number	Herewith
99.7	Form of Stock Option Grant Notice under 2009 Equity Incentive Plan	S-1	12/21/2010	10.8	
99.9	2010 Employee Stock Purchase Plan	S-1	12/21/2010	10.9	
99.8	2010 Non-Employee Directors' Stock Award Plan, as amended	S-1/A	11/08/2011	10.10	

ITEM 9. UNDERTAKINGS.

- (a) The undersigned Registrant hereby undertakes:
 - (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:
 - (i) To include any prospectus required by section 10(a)(3) of the Securities Act.
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement.
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement.

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the Registration Statement is on Form S-8, and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement; and

- (2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement shall be deemed to be a new

registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of

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appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Ames, State of Iowa, on November 17, 2011.

NEWLINK GENETICS CORPORATION

By: /s/ Charles J. Link, Jr.

Charles J. Link, Jr., M.D.

Chief Executive Officer, Chairman of the Board

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POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Charles Link, Jr. and Gordon Link, and each of them, his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-infact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Charles J. Link, Jr. Charles J. Link, Jr.	Chief Executive Officer, Chairman of the Board and Director (<i>Principal Executive Officer</i>)	November 17, 2011
/s/ Gordon H. Link, Jr. Gordon H. Link, Jr.	Chief Financial Officer and Secretary (Principal Financial and Accounting Officer)	November 17, 2011
/s/ Thomas A. Raffin Thomas A. Raffin	Director	November 17, 2011
/s/ Ernest J. Talarico, III Ernest J. Talarico, III	Director	November 17, 2011
/s/ David J. Lundquist David J. Lundquist	Director	November 17, 2011
/s/ Sarah Alexander Sarah Alexander	Director	November 17, 2011
/s/ Joseph Saluri Joseph Saluri	Director	November 17, 2011

EXHIBIT INDEX

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5.1	Opinion of Cooley LLP				X
23.1	Consent of KPMG LLP, independent registered public accounting firm				X
23.2	Consent of Cooley LLP (included in Exhibit 5.1)				X
24.1	Power of Attorney (see signature page of this registration statement)				X
99.1	2000 Equity Incentive Plan	S-1	12/21/2010	10.2	
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James C. T. Linfield T: +1 720 566 4010 linfieldjct@cooley.com

November 16, 2011

NewLink Genetics Corporation 2503 South Loop Drive Ames, IA 50010

Ladies and Gentlemen:

You have requested our opinion with respect to certain matters in connection with the filing by NewLink Genetics Corporation (the "Company") of a Registration Statement on Form S-8 (the "Registration Statement") with the Securities and Exchange Commission covering the offering of up to an aggregate of 4,285,696 shares of the Company's Common Stock, \$0.01 par value (the "Shares"), including (i) 554,272 shares (the "2000 EIP Shares") reserved for issuance upon the exercise of options issued under the Company's 2000 Equity Incentive Plan (the "2000 EIP"), (ii) 3,041,523 shares (the "Reserved 2009 EIP Shares") reserved for issuance pursuant to the Company's 2009 Equity Incentive Plan, as amended (the "2009 EIP"), (iii) 237,521 shares (the "Remaining 2009 EIP Shares") reserved for future grant under the 2009 EIP, (iv) 238,095 shares (the "NEDSAP Shares") reserved for issuance pursuant to the Company's 2010 Non-Employee Directors' Stock Award Plan, as amended (the "2010 NEDSAP") and (v) 214,285 shares (the "ESPP Shares") reserved for issuance pursuant to the Company's 2010 Employee Stock Purchase Plan (the "2010 ESPP", and collectively with the 2000 EIP, the 2009 EIP and the 2010 NEDSAP, the "Plans").

In connection with this opinion, we have examined and relied upon the Registration Statement and the related prospectuses, the Company's Amended and Restated Certificate of Incorporation, as amended, and Bylaws as in effect prior to the closing of the Company's initial public offering, its Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws that became effective upon the closing of the Company's initial public offering, the Plans and such other documents, records, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. We have assumed the genuineness and authenticity of all documents submitted to us as originals, the conformity to originals of all documents submitted to us as copies, the accuracy, completeness and authenticity of certificates of public officials, and the due execution and delivery of all documents, where due execution and delivery are a prerequisite to the effectiveness thereof. As to certain factual matters, we have relied upon a certificate of officers of the Company and have not sought independently to verify such matters. Our opinion is expressed only with respect to the General Corporation Law of the State of Delaware.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the 2000 EIP Shares, when sold and issued in accordance with the 2000 EIP, the NEDSAP Shares, when sold and issued in accordance with the 2010 NEDSAP, and the ESPP Shares, when sold and issued in

380 INTERLOCKEN CRESCENT, SUITE 900, BROOMFIELD, CO 80021-8023 T: (720) 566-4000 F: (720) 566-4099 WWW.COOLEY.COM

accordance with the 2010 ESPP, and in each case when sold and issued in accordance with the Registration Statement and related prospectuses, will be validly issued, fully paid, and nonassessable (except as to shares issued pursuant to deferred payment arrangements, which will be fully paid and nonassessable when such deferred payments are made in full).

We consent to the filing of this opinion as an exhibit to the Registration Statement.

Sincerely,

COOLEY LLP

By: /s/ James C.T. Linfield

James C.T. Linfield, Partner

Consent of Independent Registered Public Accounting Firm

The Board of Directors NewLink Genetics Corporation:

We consent to the incorporation by reference in this Registration Statement on Form S-8 of NewLink Genetics Corporation of our report dated February 25, 2011, except as to note 3, which is as of September 7, 2011 and note 21, which is as of October 25, 2011 with respect to the consolidated balance sheets of NewLink Genetics Corporation and subsidiary (a development stage enterprise) as of December 31, 2009 and 2010, and the related consolidated statements of operations, equity (deficit) and cash flows for each of the years in the three-year period ended December 31, 2010 and for the period from June 4, 1999 (inception) through December 31, 2010, which report is included in the Registration Statement on Form S-1 (No. 333-171300) of NewLink Genetics Corporation.

/s/ KPMG LLP

Des Moines, Iowa November 16, 2011